

24" Planer

(Model 22-470, Three Phase)



DATED 6-28-99

PART NO. 1342457
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Two Year Limited Warranty Delta Machinery

Delta will repair or replace, at its expense and at its option, any Delta machine, machine part, or machine accessory which in normal use has proven to be defective in workmanship or material, provided that the customer notifies his supplying distributor of the alleged defect within two years from the date of delivery to him, of the product and provides Delta Machinery with reasonable opportunity to verify the defect by inspection. Delta Machinery may require that electric motors be returned prepaid to the supplying distributor or authorized service center for inspection and repair or replacement. Delta Machinery will not be responsible for any asserted defect which has resulted from misuse, abuse or repair or alteration made or specifically authorized by anyone other than an authorized Delta service facility or representative. Under no circumstances will Delta Machinery be liable for incidental or consequential damages resulting from defective products. This warranty is Delta Machinery's sole warranty and sets forth the customers exclusive remedy, with respect to defective products; all other warranties, express or implied, whether of merchantability, fitness for purpose, or otherwise, are expressly disclaimed by Delta.

SAFETY RULES

Woodworking can be dangerous if safe and proper operating procedures are not followed. As with all machinery, there are certain hazards involved with the operation of the product. Using the machine with respect and caution will considerably lessen the possibility of personal injury. However, if normal safety precautions are overlooked or ignored, personal injury to the operator may result. Safety equipment such as guards, push sticks, hold-downs, featherboards, goggles, dust masks and hearing protection can reduce your potential for injury. But even the best guard won't make up for poor judgment, carelessness or inattention. Always use common sense and exercise caution in the workshop. If a procedure feels dangerous, don't try it. Figure out an alternative procedure that feels safer. REMEMBER: Your personal safety is your responsibility.

This machine was designed for certain applications only. Delta Machinery strongly recommends that this machine not be modified and/or used for any application other than that for which it was designed. If you have any questions relative to a particular application, DO NOT use the machine until you have first contacted Delta to determine if it can or should be performed on the product.

DELTA INTERNATIONAL MACHINERY CORP.
MANAGER OF TECHNICAL SERVICES
246 ALPHA DRIVE
PITTSBURGH, PENNSYLVANIA 15238
(IN CANADA: 644 IMPERIAL ROAD, GUELPH, ONTARIO N1H 6M7)

WARNING: FAILURE TO FOLLOW THESE RULES MAY RESULT IN SERIOUS PERSONAL INJURY

1. **FOR YOUR OWN SAFETY, READ INSTRUCTION MANUAL BEFORE OPERATING THE TOOL.** Learn the tool's application and limitations as well as the specific hazards peculiar to it.
2. **KEEP GUARDS IN PLACE** and in working order.
3. **ALWAYS WEAR EYE PROTECTION.**
4. **GROUND ALL TOOLS.** If tool is equipped with three-prong plug, it should be plugged into a three-hole electrical receptacle. If an adapter is used to accommodate a two-prong receptacle, the adapter lug must be attached to a known ground. Never remove the third prong.
5. **REMOVE ADJUSTING KEYS AND WRENCHES.** Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it "on."
6. **KEEP WORK AREA CLEAN.** Cluttered areas and benches invite accidents.
7. **DON'T USE IN DANGEROUS ENVIRONMENT.** Don't use power tools in damp or wet locations, or expose them to rain. Keep work area well-lighted.
8. **KEEP CHILDREN AND VISITORS AWAY.** All children and visitors should be kept a safe distance from work area.
9. **MAKE WORKSHOP CHILDPROOF** – with padlocks, master switches, or by removing starter keys.
10. **DON'T FORCE TOOL.** It will do the job better and be safer at the rate for which it was designed.
11. **USE RIGHT TOOL.** Don't force tool or attachment to do a job for which it was not designed.
12. **WEAR PROPER APPAREL.** No loose clothing, gloves, neckties, rings, bracelets, or other jewelry to get caught in moving parts. Nonslip footwear is recommended. Wear protective hair covering to contain long hair.
13. **ALWAYS USE SAFETY GLASSES.** Wear safety glasses. Everyday eyeglasses only have impact resistant lenses; they are not safety glasses. Also use face or dust mask if cutting operation is dusty.
14. **SECURE WORK.** Use clamps or a vise to hold work when practical. It's safer than using your hand and frees both hands to operate tool.
15. **DON'T OVERREACH.** Keep proper footing and balance at all times.
16. **MAINTAIN TOOLS IN TOP CONDITION.** Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
17. **DISCONNECT TOOLS** before servicing and when changing accessories such as blades, bits, cutters, etc.
18. **USE RECOMMENDED ACCESSORIES.** The use of accessories and attachments not recommended by Delta may cause hazards or risk of injury to persons.
19. **REDUCE THE RISK OF UNINTENTIONAL STARTING.** Make sure switch is in "OFF" position before plugging in power cord.
20. **NEVER STAND ON TOOL.** Serious injury could occur if the tool is tipped or if the cutting tool is accidentally contacted.
21. **CHECK DAMAGED PARTS.** Before further use of the tool, a guard or other part that is damaged should be carefully checked to ensure that it will operate properly and perform its intended function – check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced.
22. **DIRECTION OF FEED.** Feed work into a blade or cutter against the direction of rotation of the blade or cutter only.
23. **NEVER LEAVE TOOL RUNNING UNATTENDED. TURN POWER OFF.** Don't leave tool until it comes to a complete stop.
24. **DRUGS, ALCOHOL, MEDICATION.** Do not operate tool while under the influence of drugs, alcohol or any medication.
25. **MAKE SURE TOOL IS DISCONNECTED FROM POWER SUPPLY** while motor is being mounted, connected or re-connected.
26. **WARNING:** The dust generated by certain woods and wood products can be injurious to your health. Always operate machinery in well ventilated areas and provide for proper dust removal. Use wood dust collection systems whenever

ADDITIONAL SAFETY RULES FOR PLANERS

1. **IF YOU ARE NOT** thoroughly familiar with the operation of planers, obtain advice from your supervisor, instructor or other qualified person.

2. **MAKE SURE** wiring codes and recommended electrical connection instructions are followed, and that the machine is properly grounded.

3. **MAKE** all adjustments with the power “OFF.”

4. **DISCONNECT** machine from power source when making repairs.

5. **KEEP** knives sharp and free of all rust and pitch.

6. **NEVER** perform any planing operation with the top cover or guard removed.

7. **KEEP** fingers and hands away from cutting area.

8. **KEEP** fingers and hands away from chip exhaust opening. The cutterhead rotates at extremely high speeds.

9. **NEVER** feed the work into the outfeed end of machine.

10. **ADEQUATELY** support the workpiece at all times.

11. **NEVER** start the machine with the workpiece in contact with the cutterhead.

12. **CHECK MATERIAL** for loose knots and other defects before planing.

13. **MAKE SURE** the workpiece is free from nails and other foreign objects which could cause injury or damage to the blades.

14. **MAKE SURE** the blades are properly secured in the cutterhead, as explained in the instruction manual,

before turning on power.

15. **ALWAYS** allow the cutterhead to reach full speed before using.

16. **REMOVE SHAVINGS** only with the power “OFF.”

17. **KEEP HANDS** away from the top surface of the board near the feed rolls.

18. **WHEN PLANING** bowed stock, always turn the concave side of the stock toward the table and cut with the grain.

19. **IF DURING OPERATION** there is any tendency for the machine to tip over, slide or walk on the supporting surface, **MAKE CERTAIN TOOL IS SECURED TO THE SUPPORTING SURFACE.**

20. **DO NOT** perform planing operations on material shorter than 12 inches, or thinner than 3/16 inch.

21. **DISCONNECT** machine from power source when making repairs.

22. **BEFORE LEAVING** the machine, make sure the work area is clean.

23. **SHOULD** any part of your machine be missing, damaged or fail in any way, or any electrical component fail to perform properly, shut off switch and remove plug from power supply outlet. Replace missing, damaged or failed parts before resuming operation.

24. **ADDITIONAL INFORMATION** regarding the safe and proper operation of this product is available from the National Safety Council, 1121 Spring Lake Drive, Itasca, IL 60143-3201, in the Accident Prevention Manual for Industrial Operation and also in the Safety Data Sheets provided by the NSC. Please also refer to the American National Standard Institute ANSI O1.1 Safety Requirements for Woodworking Machinery and the U.S. Department of Labor OSHA 1910.213 regulations.

UNPACKING AND CLEANING

1. The 24 planer is shipped complete in one container mounted to a shipping skid. Remove the wooden crate from around the machine. The planer is shipped with the motor, motor pulleys and belts assembled to the machine. Fig. 2, illustrates the loose items supplied with the machine.

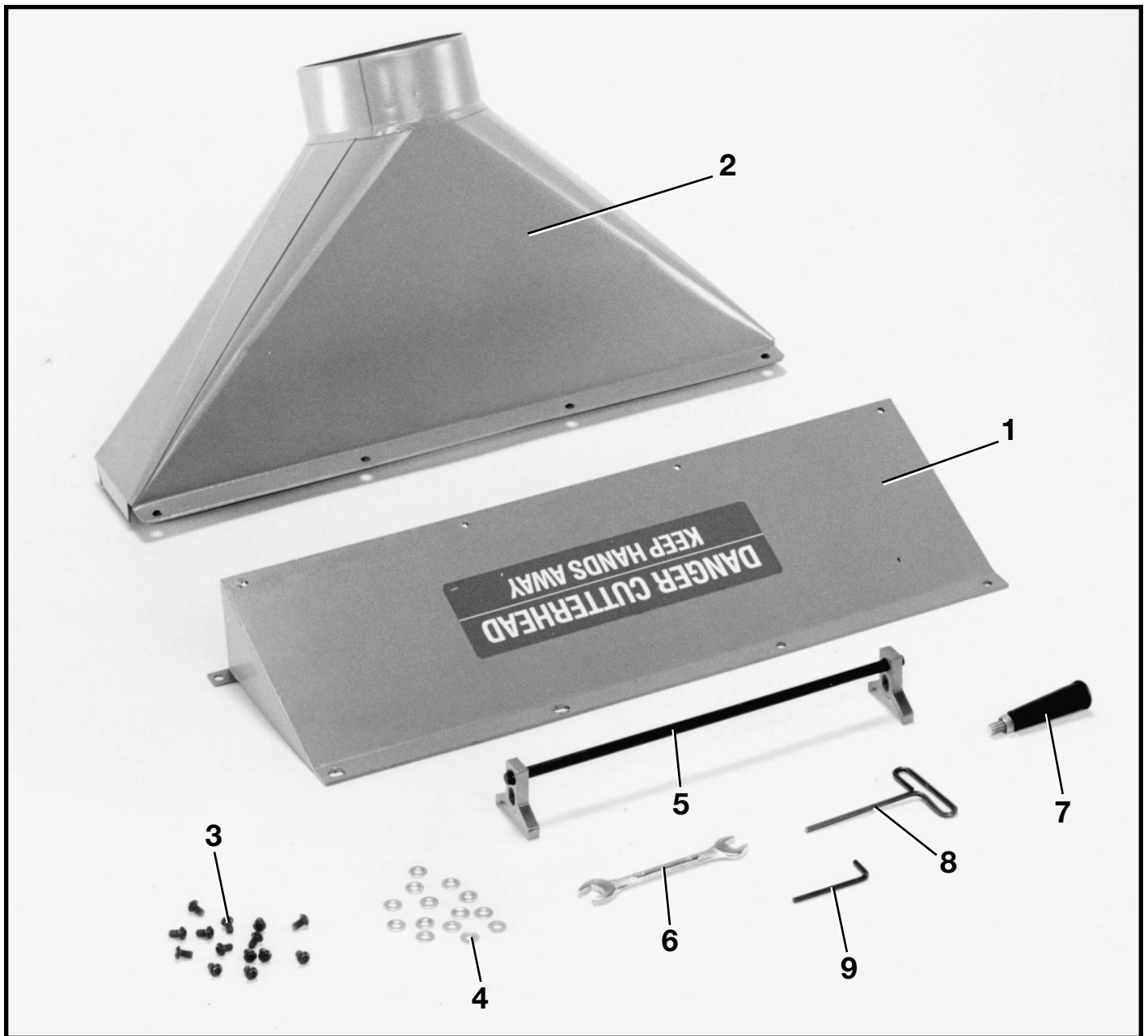


Fig. 2

- | | |
|---|------------------------------|
| 1. Cutterhead Guard | 5. Knife setting gage |
| 2. Dust Hood | 6. 10 x 14mm open end wrench |
| 3. M6 x 12mm Button-head Screws for fastening the top cover and dust hood to the machine (14) | 7. Handwheel handle |
| 4. Flat Washers (14) | 8. T-handle wrench |
| | 9. Allen wrench |

2. Remove the bolts that fasten the machine to the shipping skid.

3. Two lifting lugs are built into the machine, one of which is shown at (A) Fig. 3. These lugs can be used to mechanically lift the machine using a forklift and lifting straps. **NOTE:** The other lifting lug is located at the rear and the opposite end of the machine. Carefully remove the planer from the shipping skid.

4. If it is necessary to lower the table (B) Fig. 3, to facilitate cleaning, loosen lock knob (C) and turn handwheel (D) counterclockwise until the table (B) is at the desired height for cleaning.

5. With allen wrench supplied, loosen and remove screw (E) Fig. 4, from the left top edge of the machine and raise the top cover (F) Fig. 5 as shown, exposing the chipbreakers, and cutterhead. **NOTE:** The top cover of the machine is hinged to facilitate cleaning and performing maintenance and adjustment procedures.

6. Carefully remove the protective coating from the table, table rolls, infeed roll, anti-kickback fingers, cutterhead and cutterhead knives. This protective coating may be removed with a soft cloth moistened with kerosene. **(DO NOT USE GASOLINE, ACETONE, OR LACQUER THINNER FOR THIS PURPOSE).** **CAUTION:** Extreme care should be taken when cleaning the knives as the cutterhead knives are positioned in the cutterhead and are very sharp.

7. After cleaning, cover the table surface with a good quality paste wax.

8. Lower top cover and replace locking screw which was removed in **STEP 5**.



Fig. 3

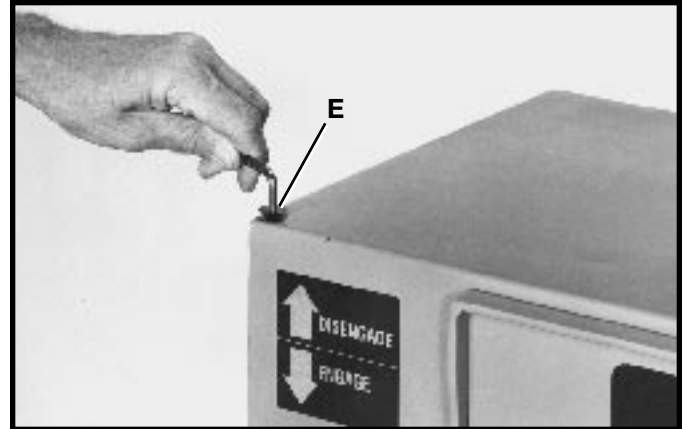


Fig. 4

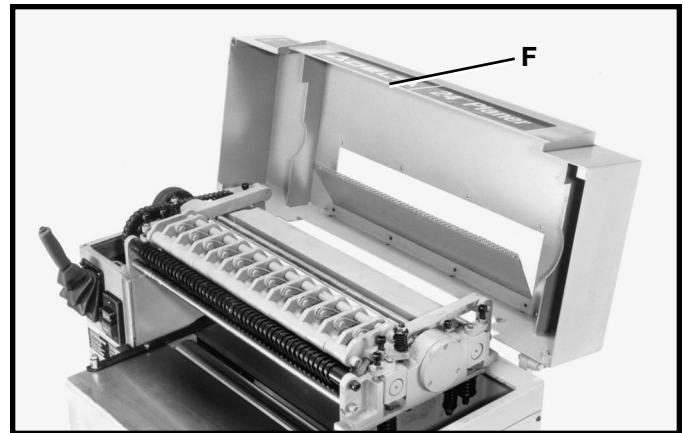


Fig. 5

ASSEMBLY

ASSEMBLING HANDWHEEL HANDLE

Thread handle assembly (A) Fig. 6, into handwheel (B) and tighten locknut (C).

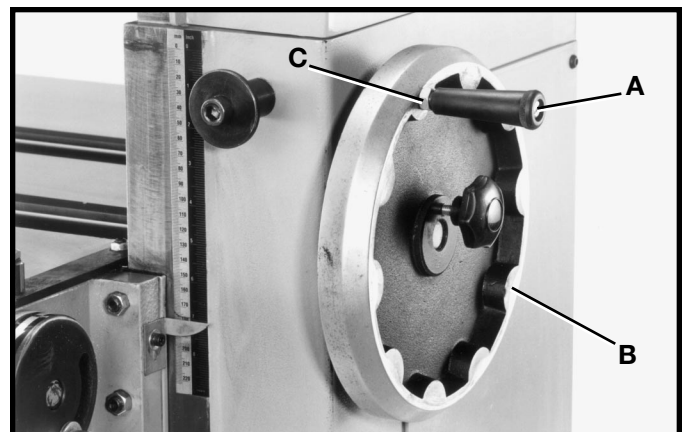


Fig. 6

ASSEMBLING CUTTERHEAD GUARD

Position cutterhead guard (A) Fig. 7, on top cover of machine. Align holes in cutterhead guard (A) Fig. 7, with holes in top cover and fasten with six 12mm button head screws (B) and flat washers, five of which are shown.

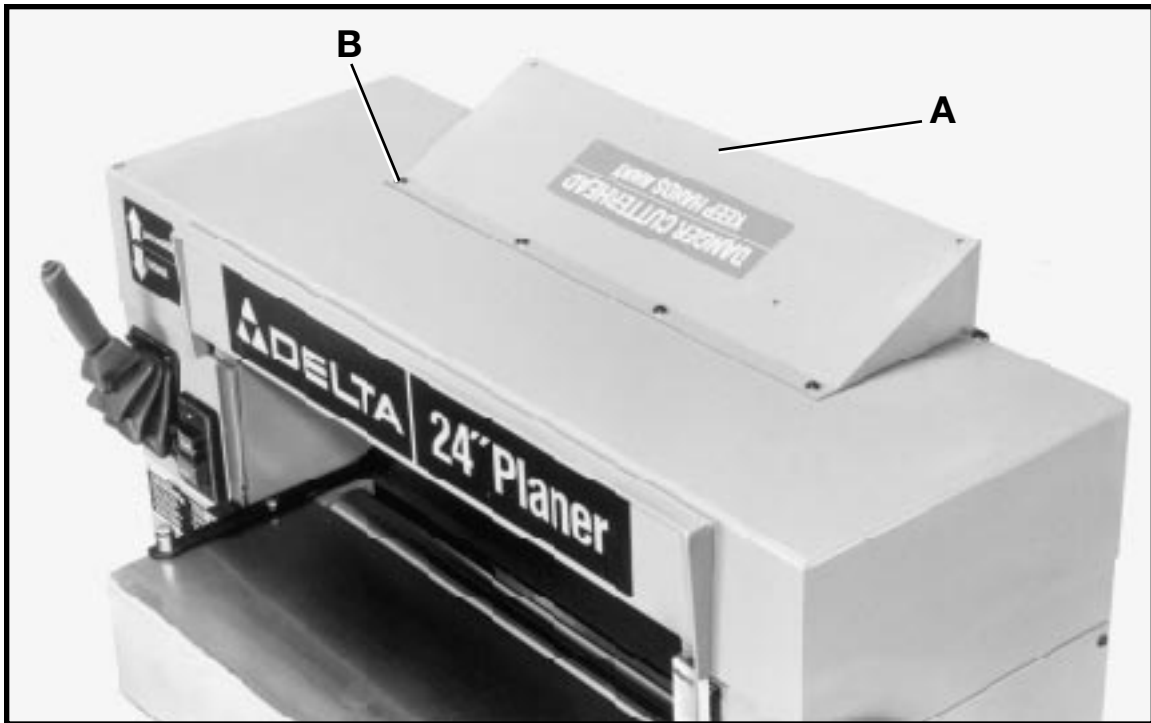


Fig. 7

ASSEMBLING DUST HOOD

A dust hood with a 5" opening is supplied with your machine and is to be used when connecting the planer to a dust collector or a central dust collection system.

Position dust hood (A) Fig. 8, against the rear of the machine and on top of cutterhead guard (B). Align the holes and fasten the dust hood (A) Fig. 9, to the cutterhead guard (B) using seven 12mm button head screws (C) and flat washers, four of which are shown.

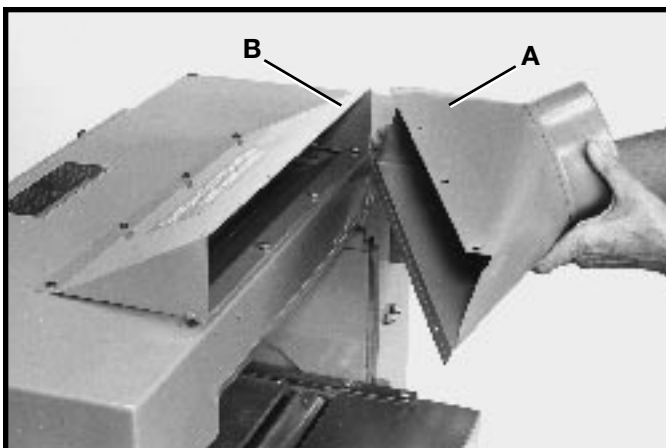


Fig. 8



Fig. 9

ELECTRICAL CONNECTIONS

The 24 Planer is wired as specified for 200-220 or 440 volt operation. Before connecting your machine to an electrical power system, make certain the motor rating agrees with the electrical system it is to be connected to. **NOTE:** Power cord and plug are not shipped with the planer. The standard machine is shipped wired for 200-220 volt operation. To wire the machine:

1. Loosen screw (A) Fig. 10, and remove cover (B) from terminal box located at the rear of the machine. Bring power line up through hole (C) Fig. 11, in the terminal box. **NOTE:** Strain relief and power cord clamp are not supplied with the machine. Remove plastic shield (D) Fig. 11, from terminal strip (E).

2. Connect the three power lines to terminals (F), (G), and (K) Fig. 12, and the green ground wire to terminal (H). After applying power to the machine, jog the power on and off to check if the machine is rotating correctly. If the cutterhead is not rotating correctly, interchange any two of the three power lines connected to terminals (F), (G), and (K).

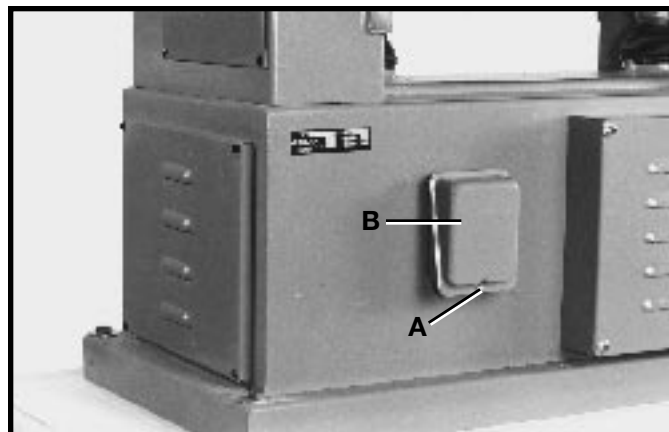


Fig. 10

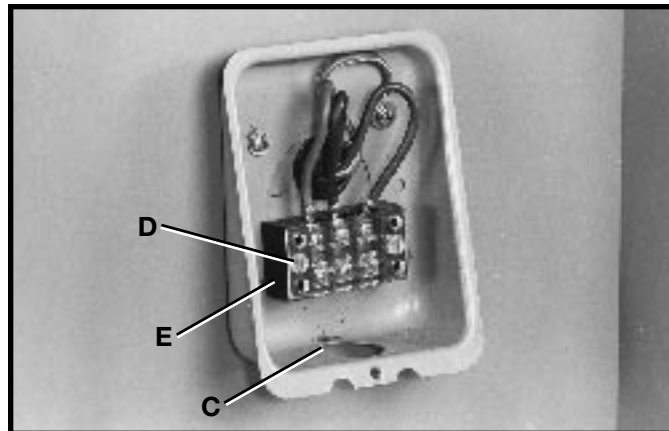


Fig. 11

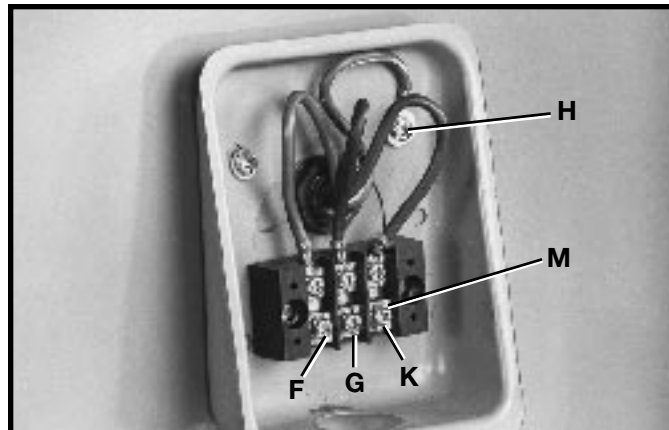


Fig. 12

CHANGING VOLTAGE

If you must reconnect your machine for 440 volt operation, have a certified electrician connect the machine to the power source.

OPERATING CONTROLS AND ADJUSTMENTS

START/STOP SWITCH

The power switch is located on the left side of the machine. To turn the machine "ON," push the green start button (A) Fig. 13.

To turn the machine "OFF," push the red stop button (B).

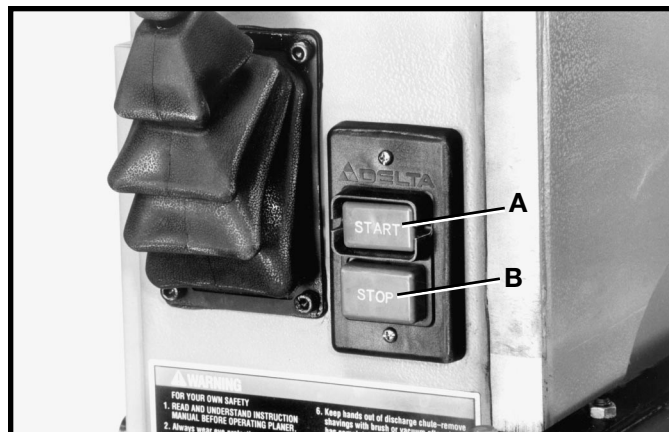


Fig. 13

LOCKING SWITCH IN THE “OFF” POSITION

IMPORTANT: We suggest that when the machine is not in use, the switch be locked in the “OFF” position using a padlock (C) Fig. 14, through the two holes in the start button (A) as shown.

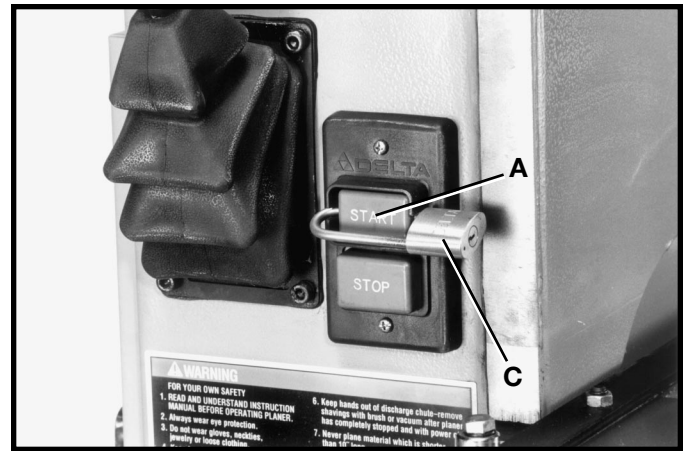


Fig. 14



Fig. 15

RAISING AND LOWERING THE TABLE

Adjustment to the table height can be made by loosening lock knob (A) Fig. 15, and rotating table raising and lowering handwheel (B). To raise the table, turn handwheel (B) clockwise; to lower the table, turn handwheel (B) counterclockwise. Tighten lock knob (A) Fig. 15, after table height adjustment is made. The English/Metric table height scale (C) Fig. 15, indicates the table height setting. **IMPORTANT:** For best results, setting of the table should always be made from the bottom to the up position.

FEED ROLL SPEEDS

Your planer is equipped with feed roll speeds of 20 feet per minute and 30 feet per minute depending on belt placement on the pulleys. As a rule, a faster feed rate is used for general planing operations, while a slower feed rate (because it provides more cuts per inch of stock) gives a finer and smoother finish to the workpiece.

1. To engage the feed rolls, simultaneously push button (A) Fig. 16, and pull downward on handle (B).



Fig. 16

2. To disengage the feed rollers, simultaneously push button (A) Fig. 17, and move handle (B) to the raised position, as shown.

3. To change feed roll speeds, disengage the feed rolls as explained in **STEP 2**.



Fig. 17

4. **DISCONNECT THE MACHINE FROM THE POWER SOURCE.**

5. Open two doors (C) and (D) Fig. 18, located on the left side of the machine.

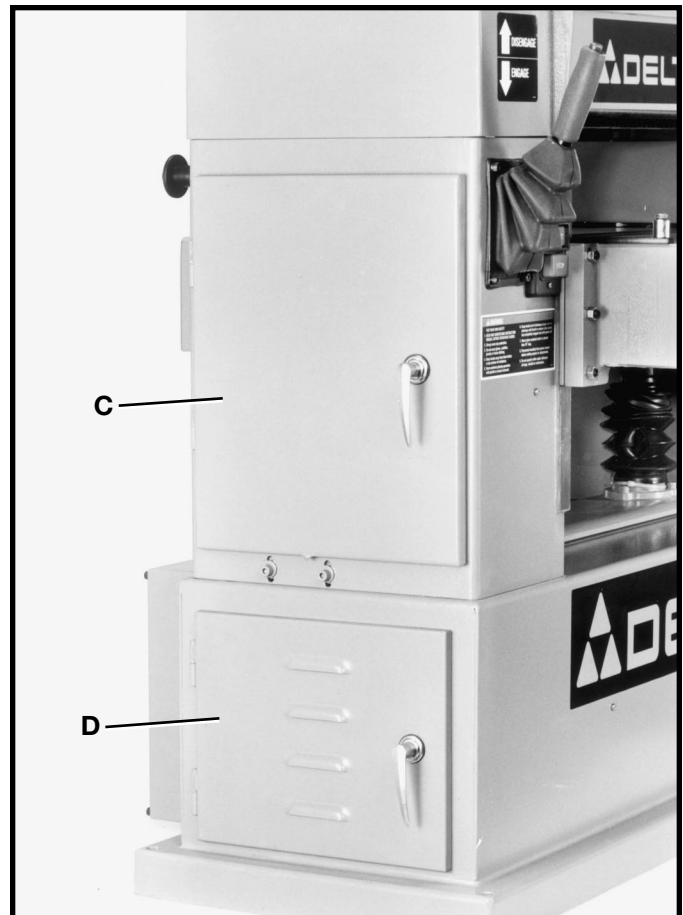


Fig. 18

6. Reposition drive belt (E) Fig. 19, on pulleys (F) and (G). When belt (E) Fig. 19, is on the smallest step of motor pulley (G) and the largest step of the gear box pulley (F), the feed roll speed will be 20 feet per minute. When belt (E) Fig. 19, is on the largest step of the motor pulley (G) and the smallest step of gear box pulley (F), the feed roll speed will be 30 feet per minute. A convenient feed rate adjustment chart is located on the back of panel (C) Fig. 20, for quick reference.

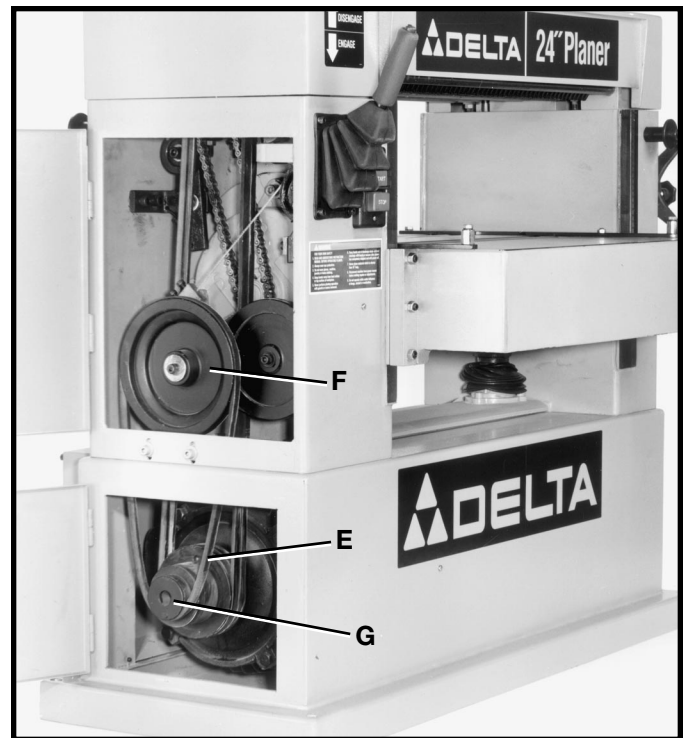


Fig. 19

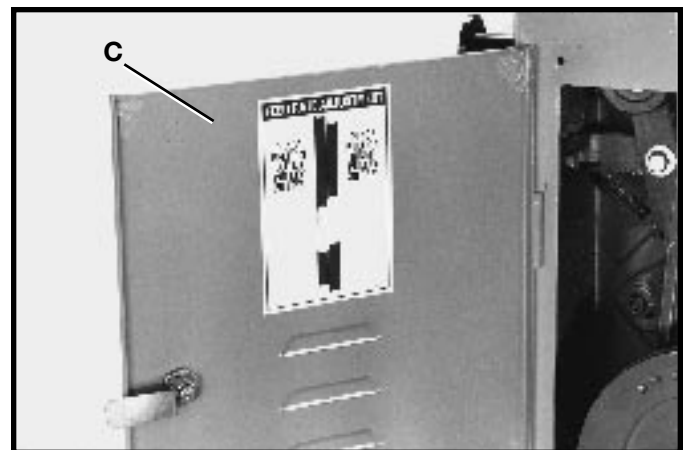


Fig. 20

TABLE ROLLS

Your planer is supplied with two table rolls (A) Fig. 21, which aid in feeding the stock by reducing friction between the stock and the table and rotate as the stock is fed through the planer.

1. To raise the table rolls, loosen locking lever (B) Fig. 21, and pull control lever (C) upward to the desired height setting.
2. To lower the table rolls, loosen locking lever (B) Fig. 21, and push control lever (C) downward to the desired height setting.
3. After adjusting height of the table rolls, tighten locking lever (C) Fig. 21.

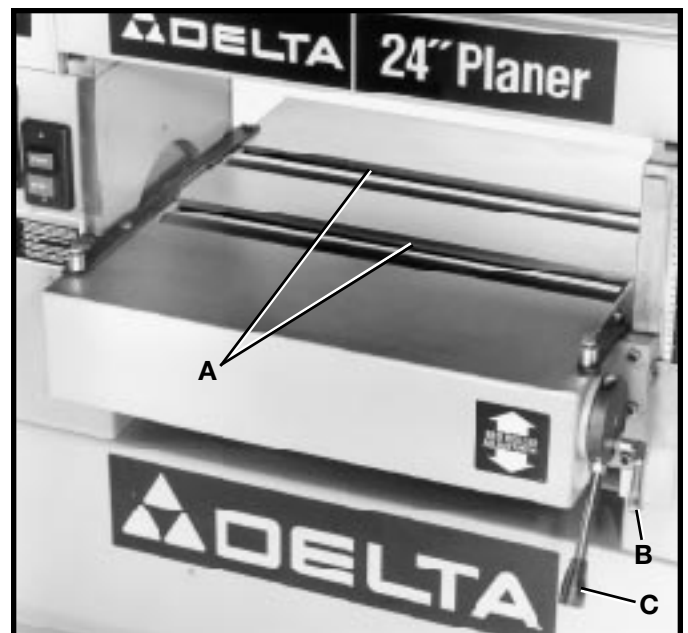


Fig. 21

CHECKING AND ADJUSTING TABLE ROLL HEIGHT

It is not possible to give exact dimensions on the proper height setting of the table rolls because each type of wood has different behavioral patterns. As a general rule, when planing rough stock, the table rolls should be set high (.003 to .005) above the table surface. When planing finish stock, the table rolls should be set low (.001) above or level with the table surface.

To check and adjust the height of the table rolls, proceed as follows:

1. DISCONNECT THE MACHINE FROM THE POWER SOURCE.

2. With the table rolls in the lowest position, lay a straight edge (A) Fig. 22, across both table rolls (B) on the left side of the table as shown.

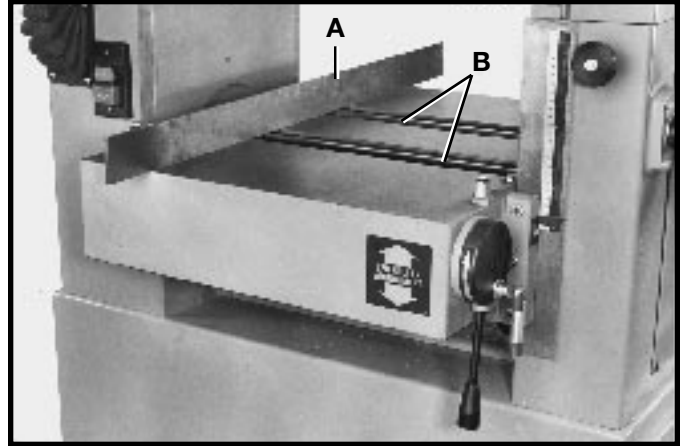


Fig. 22

3. With a feeler gage Fig. 23, measure the gap between the table surface and the straight edge (A) near the infeed roll (C).

4. If an adjustment to the infeed table roll is necessary, loosen locknut (D) Fig. 24, which is located under the table and below the infeed roll and rotate adjustment nuts (E) as necessary to raise or lower the height of the infeed roll.
NOTE: It will be necessary to raise the table to gain access to the adjustment nuts. Tighten locknut (D) after adjustment is made.

5. Check and adjust the height of the infeed table roll on the other side of the table in the same manner.

6. To check the height of the outfeed table roll, proceed as follows: with a feeler gage (B) Fig. 25, measure the gap between the table surface and the straight edge (A) near the outfeed roll (F).

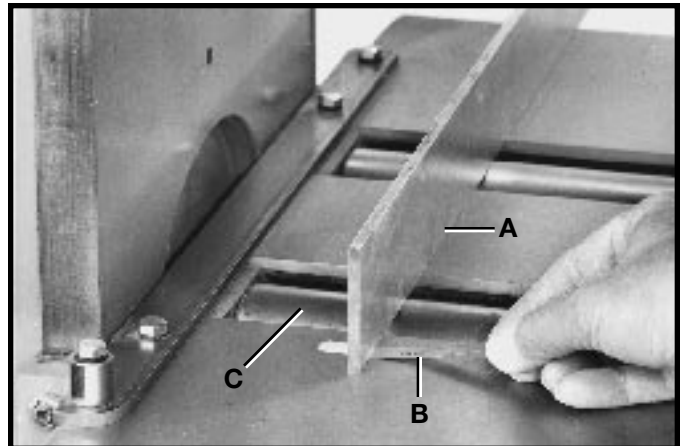


Fig. 23

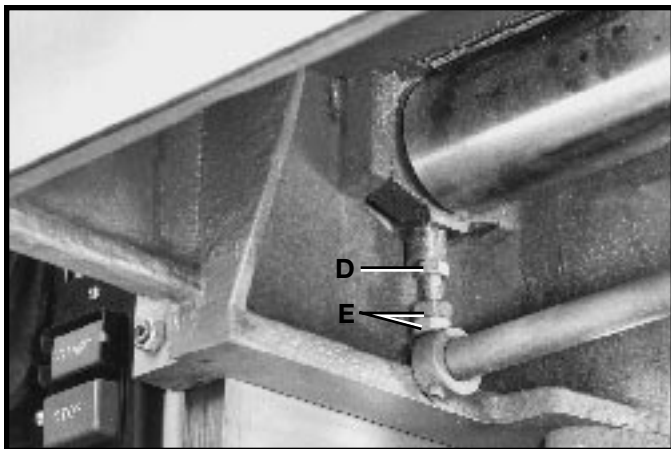


Fig. 24

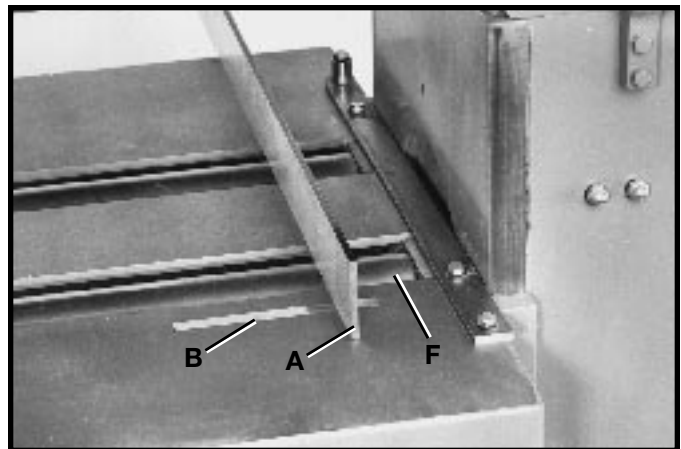


Fig. 25

7. If an adjustment to the outfeed table roll is necessary, loosen locknut (G) Fig. 26, which is located under the table and below the outfeed table roll (F), and rotate adjustment nuts (H) as necessary, to raise or lower the height of the outfeed roll (F). **NOTE:** It will be necessary to raise the table to gain access to the adjustment nuts. Tighten locknut (G) Fig. 26, after the adjustment is made.

8. Check and adjust the height of the outfeed table roll on the other side of the table in the same manner.

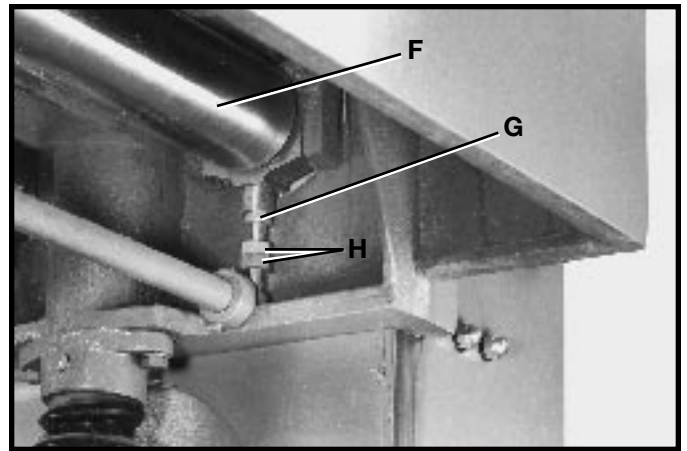


Fig. 26

ANTI-KICKBACK FINGERS

A series of anti-kickback fingers (A) Fig. 27, are provided on the infeed end of the planer to prevent kickback of the workpiece during planing operations. These anti-kickback fingers operate by gravity and no adjustment is required. It is necessary, however, to inspect them occasionally to make sure they are free of gum and pitch and that they operate independently and freely.

WARNING: WHEN INSPECTING AND CLEANING THE ANTI-KICKBACK FINGERS, MAKE CERTAIN THE MACHINE IS DISCONNECTED FROM THE POWER SOURCE.

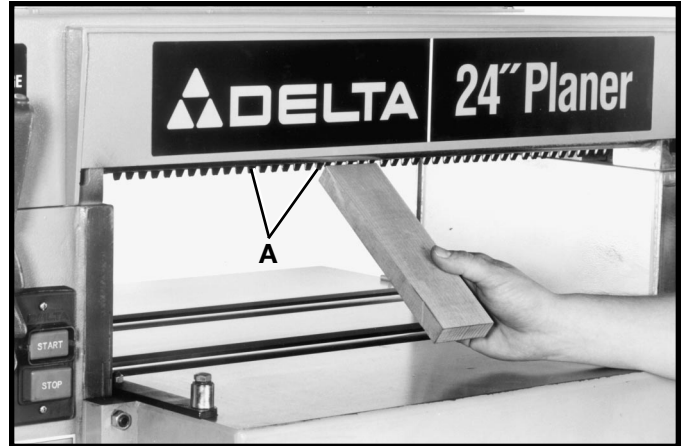


Fig. 27

CHECKING AND ADJUSTING DRIVE BELT TENSION

Proper belt tension is when there is approximately 1/4 deflection, using light finger pressure on the drive belts (A) Fig. 28, midway between pulleys. If an adjustment is necessary, proceed as follows:

1. **MAKE CERTAIN THE MACHINE IS DISCONNECTED FROM THE POWER SOURCE.**

2. Disengage feed roll lever (B) Fig. 28.

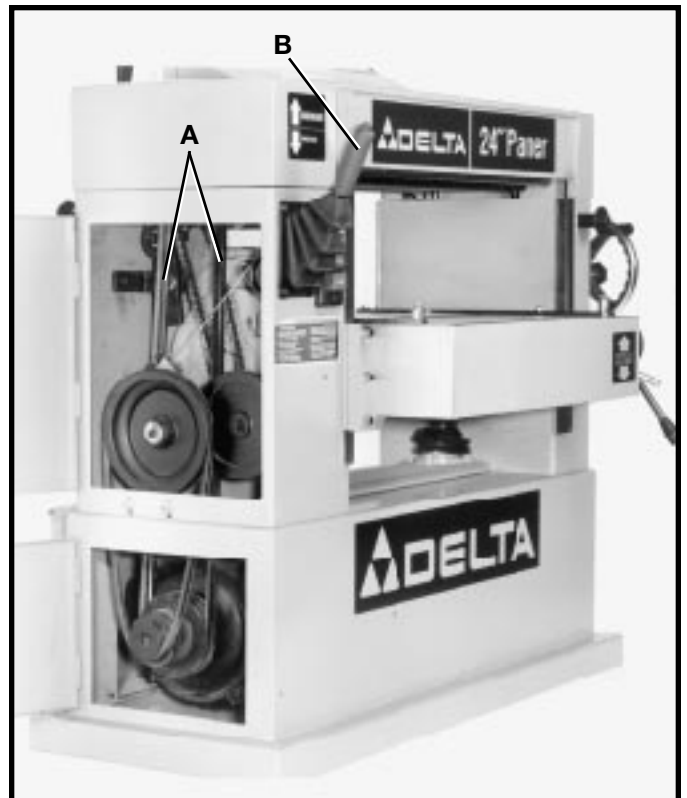


Fig. 28

3. Loosen and tighten two adjustment nuts (C) Fig. 29, to move motor plate up or down as necessary to increase or decrease drive belt tension. Tighten both adjustment nuts (C) against plate (D) Fig. 29, after adjustment is made.
4. Close both side panels.

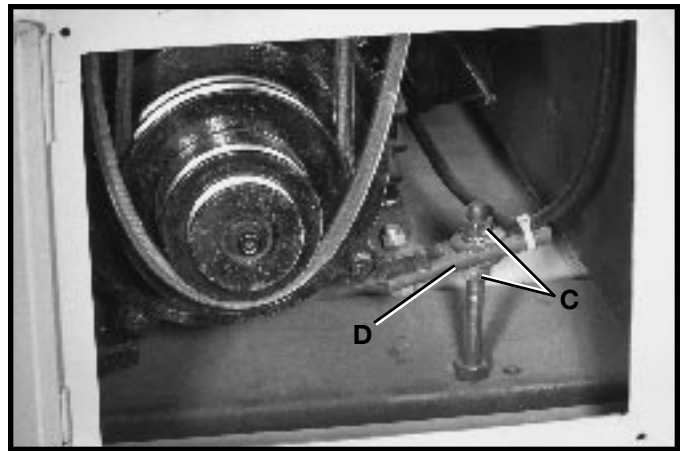


Fig. 29

CHECKING AND ADJUSTING FEED ROLL BELT TENSION

Proper tension on the feed roll belt is obtained when there is approximately 1/2" deflection, using light finger pressure on feed roll belt (A) Fig. 30. midway between pulleys (B) and (C), with feed roll lever (D) engaged. If an adjustment is necessary, proceed as follows:

1. **DISCONNECT THE MACHINE FROM THE POWER SOURCE AND ENGAGE FEED ROLL LEVER (D) FIG. 30.**
2. Remove four screws (E) Fig. 31, which hold engagement lever boot (F) to the machine.
3. Raise boot (F) Fig. 32, to gain access to adjustment hardware.
4. Loosen jam nut (G) Fig. 32, and tighten or loosen adjustment hex nut (H) as necessary to adjust feed roll belt tension.
5. Tighten jam nut (G) Fig. 32, against hex nut (H) after adjustment is made.

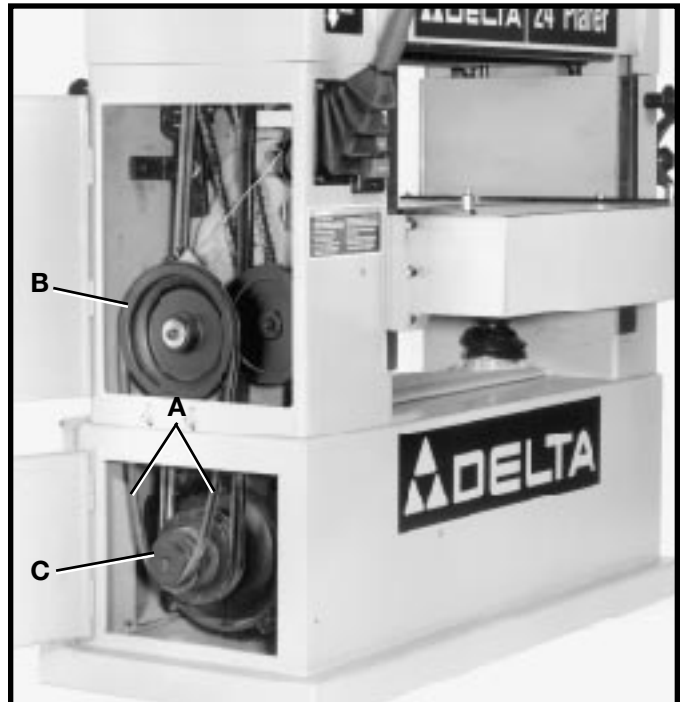


Fig. 30

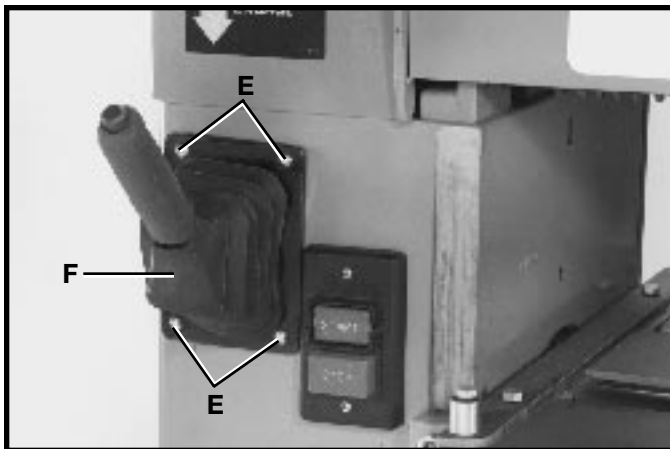


Fig. 31

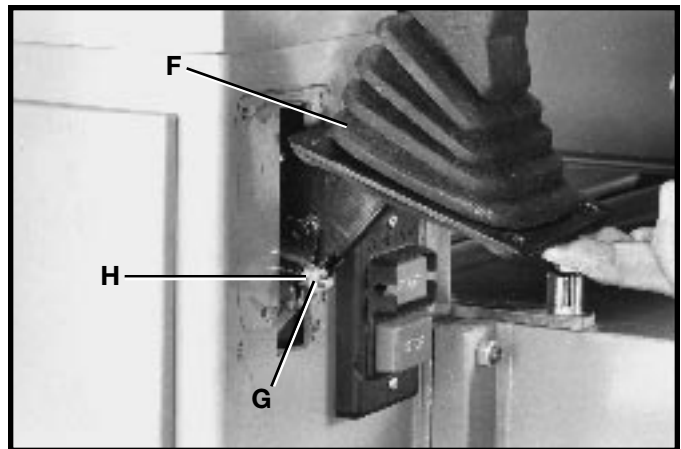


Fig. 32

CHECKING, RESETTNG AND REPLACING KNIVES

When checking, resetting and replacing knives, proceed as follows:

1. **DISCONNECT THE MACHINE FROM THE POWER SOURCE.**

2. Remove locking screw and raise top cover (A) Fig. 33, to expose cutterhead (B).

3. Carefully place knife setting gage (C) Figs. 34 and 35, so the gage is positioned on the radiused section of cutterhead (B). When set correctly, knife (D) Figs. 34 and 35, should just contact the bottom of inset section (E) Fig. 35 of knife setting gage (C) which is set at .070 . Check the remaining knives in the same manner.

4. If an adjustment to one or all three knives is necessary, slightly loosen the 12 locking screws, 10 of which are shown at (F) Fig 34 and also in Fig. 35, just enough to relieve stress in cutterhead (B) and not disturb the knife setting.

5. With knife setting gage (C) Figs. 34 and 35 still in place on the cutterhead, continue to adjust the knife that must be reset by turning the 12 knife locking screws **CLOCKWISE** until knife locking bar (G) becomes loose. Lifter springs (not shown) located under the knife will automatically raise the knife until it comes in contact with the gage (C). Then snug up the knife locking bar (G) Fig. 34 and Fig. 35, by turning the ten screws (F) **COUNTERCLOCKWISE**. **IMPORTANT: AT THIS TIME, ONLY TIGHTEN THE KNIFE LOCKING BAR (G) JUST ENOUGH TO HOLD THE KNIFE (D) IN POSITION INSIDE THE CUTTERHEAD SLOT.**

6. If other knives need adjustment, repeat **STEP 5**.

7. After all the knives are positioned in the cutterhead with the knife locking screws snug, turn each of the 12 locking screws (F) Fig. 34, **COUNTERCLOCKWISE UNTIL THE KNIVES ARE SECURE IN THE CUTTERHEAD. NOTE:** When tightening the knife locking screws (F), tighten the end screws first, then proceed inward toward the center of the cutterhead.

IMPORTANT: If the knives are to be removed for sharpening or replacement, extreme care should be taken as the knives are very sharp. To remove the knives, proceed as follows:

8. **DISCONNECT THE MACHINE FROM THE POWER SOURCE.**

9. Carefully place knife setting gage (C) Fig. 34, so it is positioned on the radiused section of the cutterhead (B) Fig. 35.

10. Loosen knife locking bar (G) Figs. 34 and 35, by turning 12 knife locking screws, 10 of which are shown at (F) **CLOCKWISE** and carefully remove locking bar (G), knife (D), and springs (not shown) which are located under the knife, from the cutterhead. Remove the remaining knives in the same manner.

11. Thoroughly clean the knife slots, knife locking bars, and locking screws. Check the screws; if the threads appear worn or stripped, or if the heads are damaged, replace them.

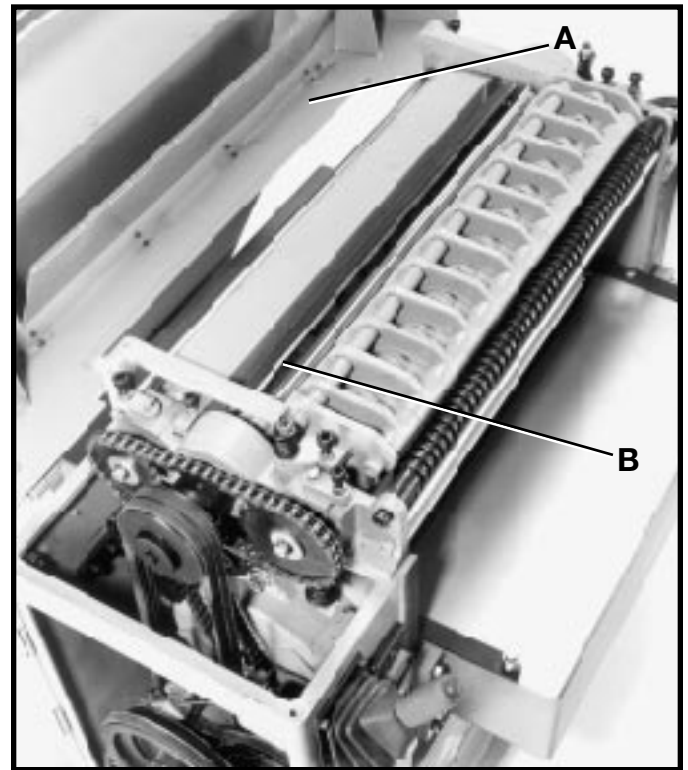


Fig. 33

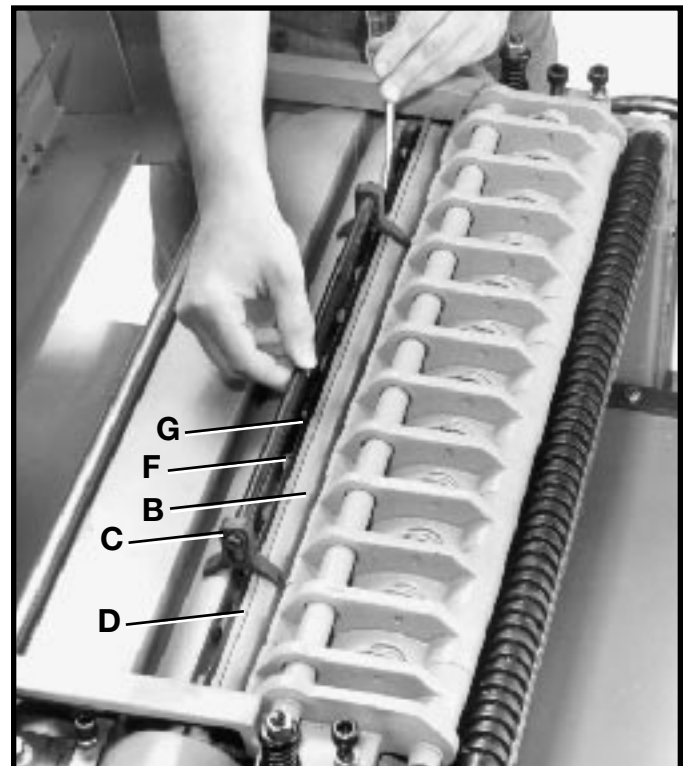


Fig. 34

12. Carefully replace the springs (not shown), knives (D) Fig. 35, and knife locking bars (G) into the three slots in the cutterhead (B). **IMPORTANT: WHEN REPLACING KNIFE LOCKING BARS (G) FIG. 35, AGAINST KNIVES (D) AS SHOWN IN THE CROSS SECTIONAL ILLUSTRATION, MAKE CERTAIN KNIFE LOCKING BARS (G) ARE INSTALLED AS SHOWN, WITH LOCKING SCREWS (F) HOLDING KNIVES (D) PROPERLY INSIDE THE CUTTERHEAD SLOTS. TURN ALL KNIFE LOCKING SCREWS, ONE OF WHICH IS SHOWN AT (F), COUNTERCLOCKWISE, JUST ENOUGH TO HOLD THE KNIVES IN THE CUTTERHEAD.**

13. Adjust the knives as explained in **STEPS 3** through **7**.

14. Replace top cover on the machine.

CONSTRUCTING GAGE BLOCK

In order to check and adjust the height of the chipbreaker, pressure bar, infeed and outfeed rolls and adjust the cutter-head parallel to the table, you will need a gage block made of hard wood. The gage block can easily be constructed by following the dimensions shown in Fig. 36.

ADJUSTING CHIPBREAKERS

The chipbreakers (A) Fig. 37, are located on top of the planer and extend downward around the front of the cutterhead. The chipbreakers will raise as stock is fed through the planer and “breaks or curls” the wood chips. The bottom of the chipbreakers must be parallel to the knives and set .040 below the cutting circle. To check and adjust the chipbreakers, proceed as follows:

1. **MAKE CERTAIN THE MACHINE IS DISCONNECTED FROM THE POWER SOURCE.**

2. Make certain the knives are adjusted properly as explained in section “**CHECKING, REPLACING AND RESETTING KNIVES.**”

3. Place gage block (B) Fig. 38, on the table surface and directly under the cutterhead as shown. Using a .040 feeler gage (C) Fig. 38, placed on top of the gage block, raise the table until cutterhead knife (D) touches the feeler gage when the knife is at its lowest point. **DO NOT MOVE THE TABLE ANY FURTHER UNTIL THE ADJUSTMENT HAS BEEN COMPLETED.**

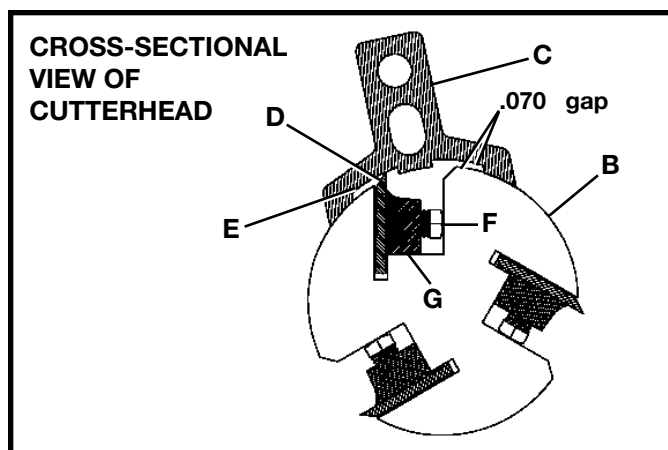


Fig. 35

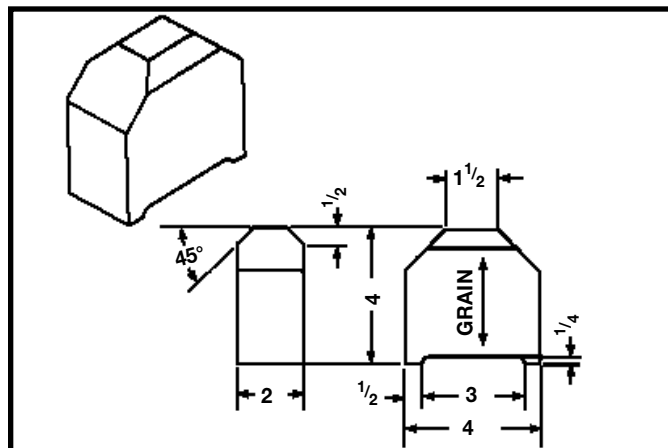


Fig. 36

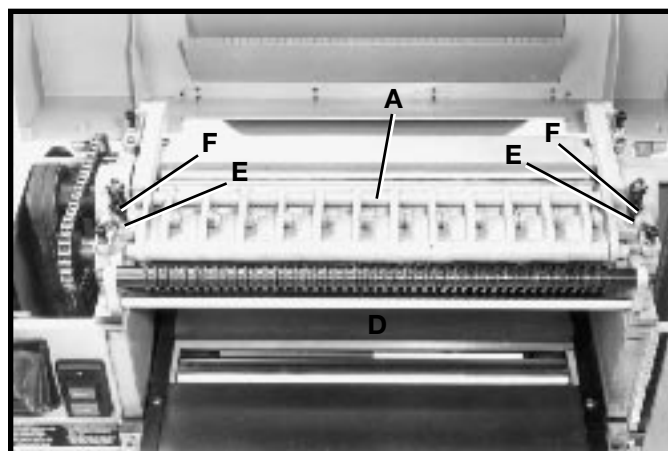


Fig. 37

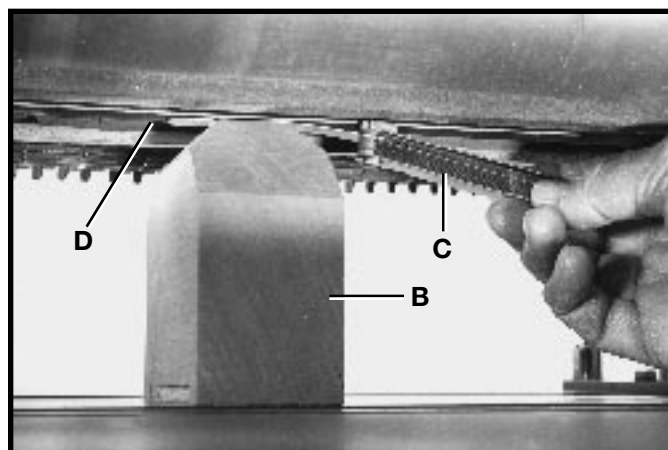


Fig. 38

4. Move gage block (B) Fig. 39, directly under chipbreakers (A) as shown. The bottom of chipbreakers (A) Fig. 39, should just touch gage block (B).

5. If an adjustment to the chipbreakers is necessary, loosen two hex nuts (E) Fig. 37, and turn adjustment screws (F) until chipbreakers (A) touch gage block (B) at both sides of the table.

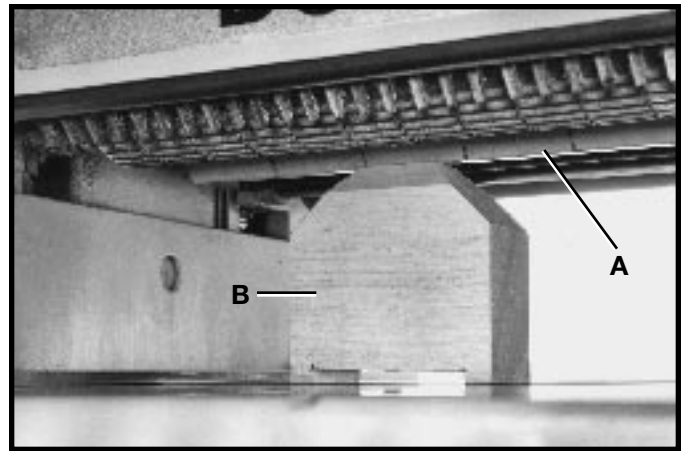


Fig. 39

ADJUSTING PRESSURE BAR

The pressure bar is located directly behind the cutterhead and rides on the planed surface of the stock, pressing the stock downward on the table. The pressure bar must be parallel to the knives and tangent to the table and set .010 below the cutting circle. To check and adjust the pressure bar, proceed as follows:

1. **MAKE CERTAIN THE MACHINE IS DISCONNECTED FROM THE POWER SOURCE.**

2. Make certain the knives are adjusted properly as explained in the section **“CHECKING, ADJUSTING AND REPLACING KNIVES.”**

3. Place gage block (B) Fig. 40, on the table surface and directly under the cutterhead as shown. Using a .010 feeler gage (C) Fig. 40, placed on top of the gage block, raise the table until cutterhead knife (D) touches the feeler gage when the knife is at its lowest point. **DO NOT MOVE THE TABLE ANY FURTHER UNTIL THE ADJUSTMENT HAS BEEN COMPLETED.**

4. Move gage block (B) Fig. 41, under pressure bar (D) as shown. The bottom of pressure bar (D) Fig. 41, should just touch the top of gage block (B). Check the opposite end of the pressure bar in the same manner.

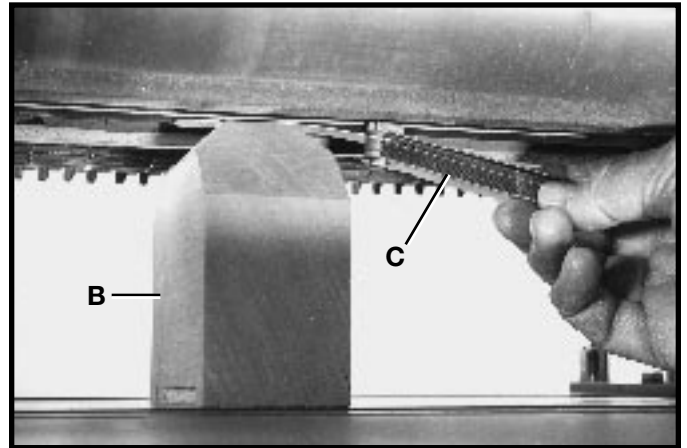


Fig. 40

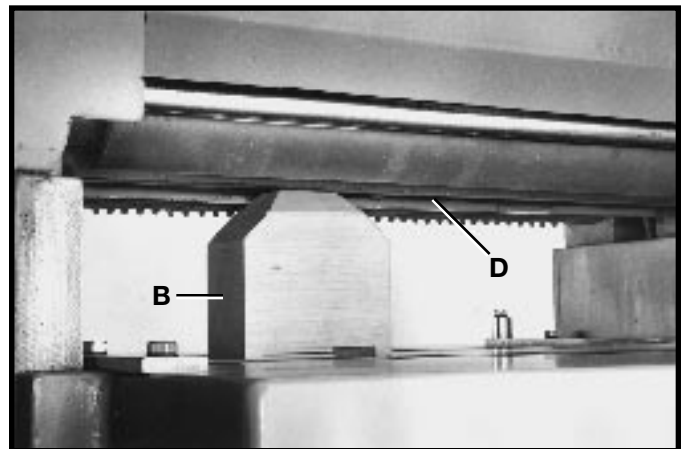


Fig. 41

5. If an adjustment to the height of the pressure bar is necessary, loosen lock nut (E) Fig. 42, and turn adjustment screw (F) until the bottom of pressure bar (D) Fig. 41, just touches top of gage block (B). Repeat the adjustment at the other end of the pressure bar in the same manner.

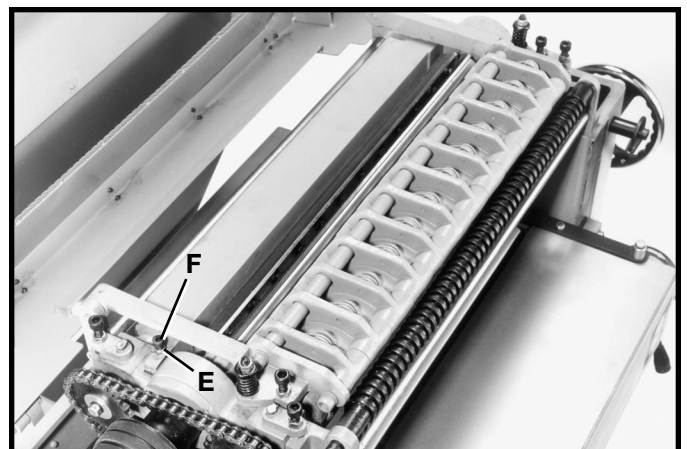


Fig. 42

ADJUSTING OUTFEED ROLL

The outfeed roll continues to feed the stock out of the machine after the planing operation has been completed and should be set at .030 below the cutting circle.

To check and adjust the setting of the outfeed roll, proceed as follows:

1. **MAKE CERTAIN THE MACHINE IS DISCONNECTED FROM THE POWER SOURCE.**

2. Make certain the knives are adjusted properly as explained in section **“CHECKING, ADJUSTING AND REPLACING KNIVES.”**

3. Place gage block (A) Fig. 43, on the table, directly under cutterhead (B). Using a .030 feeler gage (C) placed on top of gage block (A), raise the table until the cutterhead knife just touches feeler gage (A) when the knife is at its lowest point. **NOTE:** Do not move the table any further until the adjustment is complete.

4. Place gage block (A) Fig. 44, under outfeed roll (D). The bottom of roll (D) should just touch gage block (A).

5. If an adjustment is necessary, loosen locknut (E) Fig. 45, and turn adjustment screw (F) until the outfeed roller just touches the top of gage block (A) Fig. 44.

6. Repeat the adjustment on the opposite end of the outfeed roll in the same manner.

7. Tighten locknuts (E) Fig. 45 after adjustments are completed.

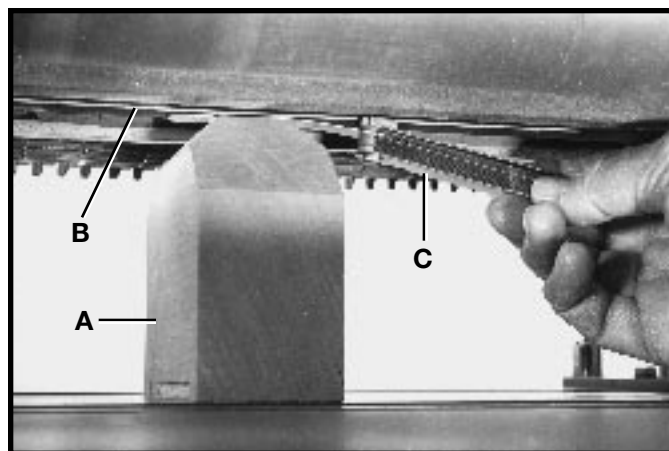


Fig. 43

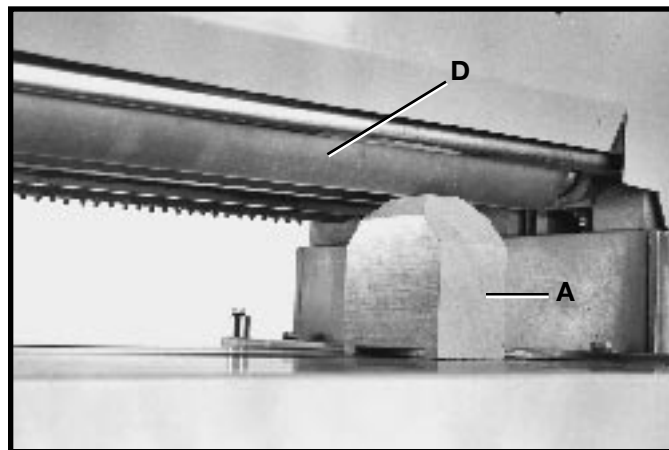


Fig. 44

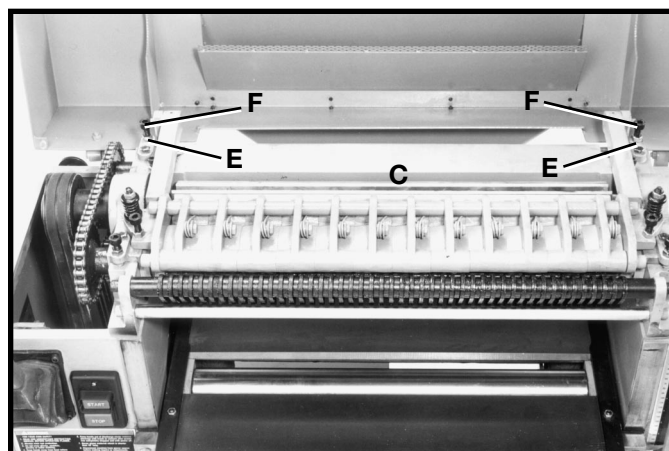


Fig. 45

ADJUSTING INFEED ROLL

The infeed roll feeds the stock into the planer while the stock is being surfaced. The infeed roll must be positioned uniformly across the planer and .040 below the cutting circle to feed the stock without slipping. To check the setting of the infeed roll, proceed as follows:

1. **MAKE CERTAIN THE MACHINE IS DISCONNECTED FROM THE POWER SOURCE.**

2. Make certain the knives are adjusted properly as explained in section **“CHECKING, ADJUSTING AND REPLACING KNIVES.”**

3. Place gage block (A) Fig. 46, on the table, directly under the cutterhead (B). Using a .040 feeler gage (C) placed on top of the gage block (A), raise the table until the cutterhead knife just touches feeler gage (A) when the knife is at its lowest point. **NOTE:** Do not move the table any further until the adjustment is complete.

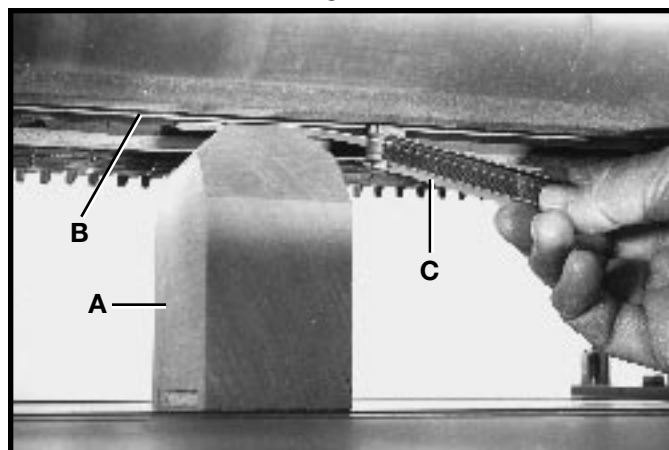


Fig. 46

4. Place gage block (A) Fig. 47, under infeed roll (D). The bottom of roller (D) should just touch gage block (A).
5. If an adjustment is necessary, loosen locknut (E) Fig. 48, and turn adjustment screw (F) until the infeed roll just touches the top of gage block (A).
6. Repeat the adjustment on the opposite end of the infeed roller in the same manner.
7. Tighten locknuts (E) Fig. 48, after adjustments are completed.

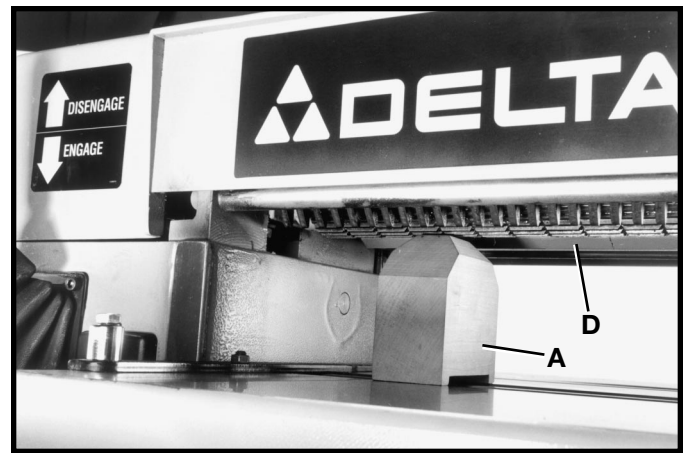


Fig. 47

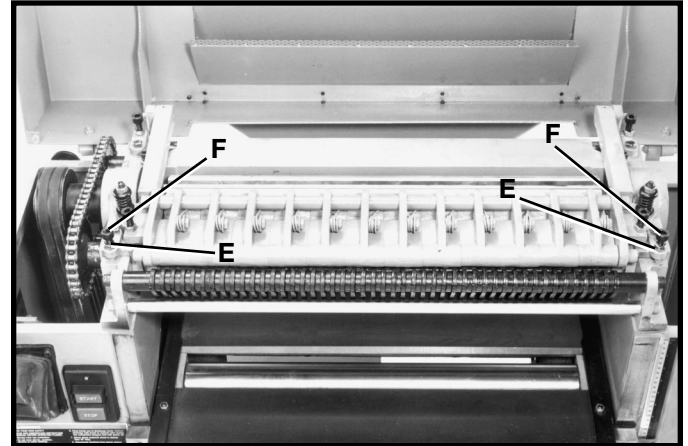


Fig. 48

LEVELING THE TABLE

The table is set parallel to the cutterhead at the factory and no further adjustment should be necessary. To check if the table is level with the cutterhead, proceed as follows:

1. **DISCONNECT THE MACHINE FROM THE POWER SOURCE.**
2. Check to see if the cutterhead knives are set correctly as explained in section **"CHECKING, ADJUSTING AND REPLACING KNIVES."**
3. Then check to see if the table is set parallel to the cutterhead by placing gage block (A) Fig. 49, directly under the cutterhead on the left hand side of the table as shown. Raise the table until gage block (A) Fig. 49, just touches the cutterhead.
4. Carefully move gage block (A) Fig. 50, to the right hand side of the table directly under the cutterhead. The distance from table to cutterhead should be identical.



Fig. 49

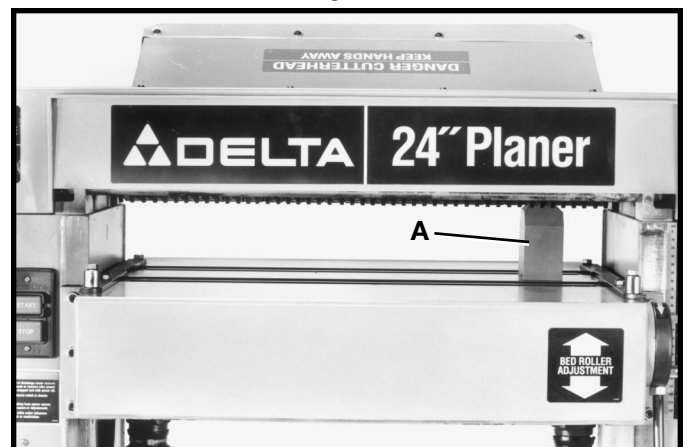


Fig. 50

5. If the table is not parallel to the cutterhead, lower boot (B) Fig. 51, which is located underneath the table. **NOTE:** Table elevating handwheel must be unlocked when making this adjustment.

6. Loosen lock screw (C) Fig. 51, and with large pliers (D) turn adjustment sleeve (E) as necessary until table is parallel with the cutterhead. Tighten lock screw (C) after adjustment is made and replace boot (B). **NOTE:** The same adjustment can also be made on the other side of the planer if necessary

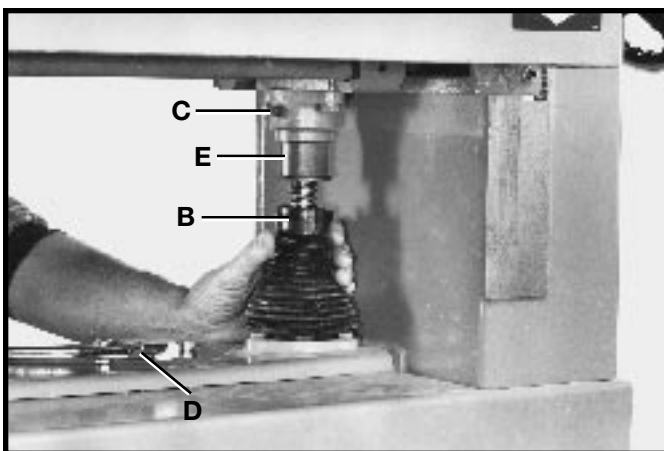


Fig. 51

ADJUSTING TABLE HEIGHT SCALE

The table height scale indicates the distance the table is from the cutting circle (depth of cut). To check and adjust the pointer, proceed as follows:

1. Run a piece of wood through the planer and stop the machine.
2. Measure the thickness of the planed end of the stock as shown in Fig. 52. If an adjustment is necessary, loosen screw (A) Fig. 53, adjust pointer (B) and retighten screw (A).

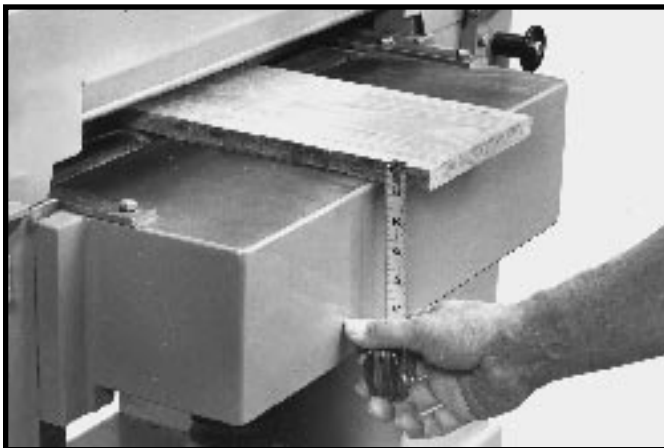


Fig. 52

ADJUSTING TABLE GIBS

In the unlikely event of the table developing unwanted movement during planing operations, the table can be checked and adjusted as follows:

1. With the table in the locked position, and with a feeler gage, measure the gap between table gib (A) Fig. 54 and table bracket (B). When set correctly the gap should be .005 .
2. If an adjustment is necessary, loosen three locknuts (C), and turn three adjustment screws (D) Fig. 54, as necessary to set the correct gap.
3. Check and adjust the gap on the other side of the table in the same manner. Tighten six locknuts, three of which are shown at (C) Fig. 54, after adjustment is made.
4. Raise and lower the table to its fullest range and check to see if the table moves up and down without

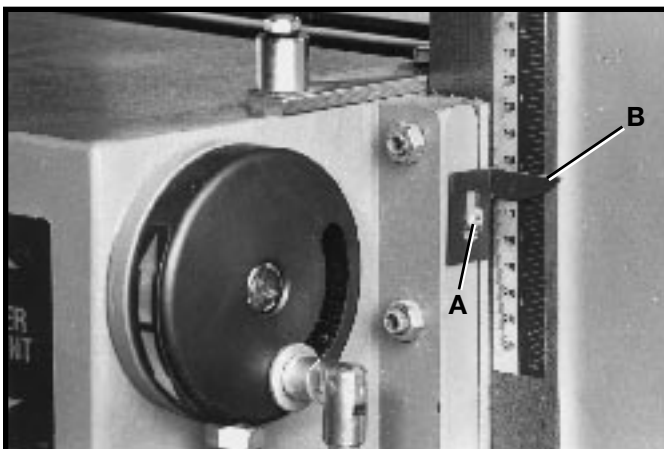


Fig. 53



Fig. 54